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07/14/2004 10:30 PM

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Subject: Environmental Defense comments on the Kerosene/Jet Fuel Category

(Submitted via Internet 7/14/04 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, lucierg@msn.com and twerdokl@api.org)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for the Kerosene/Jet Fuel Category.

The test plan and robust summaries for the kerosene/jet fuel category were submitted by the Petroleum HPV Testing Group of the American Petroleum Institute. The proposed category addresses six refinery streams: kerosene (8008-20-6), acid treated light distillate (64742-14-9), distillates chemically neutralized light (64742-31-0), kerosene hydrodesulfurized (64742-81-0), solvent naphtha heavy aliphatic (64742-96-7) and steam-cracked petroleum distillates (68477-58-7). In addition, the test plan states that eight other related refinery streams are addressed by other sponsors, primarily the American Chemistry Council.

The category members are apparently used as fuel oils, diesel fuels and aviation fuels, although use information in the test plan was quite sketchy. Jet fuel itself has no CAS number, but the sponsor indicates that it is a mix of hydrodesulfurized kerosene and kerosene. It also includes other additives which are not identified.

The category proposal is not adequately justified in the test plan, and we do not support establishing it at this time. Our primary concern is that little or no composition data are provided in the test plan. This is absolutely necessary for evaluating the scientific foundation on which a proposed category rests, especially when dealing with complex mixtures such as refinery streams. The test plan does state that these streams contain paraffins, naphthenes, aromatic hydrocarbons, alkylbenzenes and olefins, but individual chemicals and amounts in different streams are not provided. We need to know the ranges of concentrations present in each of the category members of individual chemicals; whether or not there are some constituents that are not found in all streams; the identity of additives to the streams and whether the additives are different for different proposed members; whether or not the additives are toxicologically relevant; and which of the individual constituents are already covered under existing test plans. We realize that the information requested will add to the length of the submission, but appropriate composition data have been supplied in tabular form in other submissions on refinery streams, such as those on fuel oils, olefins and low benzene naphthas. The guidelines on category formation require the sponsor to demonstrate that all proposed members will exert similar patterns of toxicity. This cannot be judged without detailed composition data.

The test plan and robust summaries did present considerable information relevant to SIDS endpoints on kerosene hydrodesulfurized (64742-81-0), and less complete data on kerosene and several jet fuel formulations. However,

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a considerable amount of available data on jet fuel JP-8 was not presented in the robust summaries, including studies conducted by the Air Force. We agree that existing data for kerosene hydrodesulfurized addresses all SIDS endpoints, and we expect that the same could be said for some formulations of jet fuel if all of the available data were presented in the test plans and robust summaries. However, unless the sponsor can justify the category by using compositional and toxicological data, then many of the SIDS endpoints are not met for the other CAS numbers covered under this test plan.

Other comments are as follows:

1. Repeat dose studies on kerosene hydrodesulfurized indicate testicular toxicity, but the test plan states that the reproductive effects are secondary to skin effects. What is the scientific basis for this statement?
2. Most of the studies in the robust summaries refer to CAS numbers for the test substances used in the studies. However, this was not done for several of the genetic toxicity studies. We request that the test substances are appropriately identified in the revised plan.
3. Are hydrazines present in all proposed members, and what are their concentrations when present?

Thank you for this opportunity to comment.

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